

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The

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disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the first sentence is a run-on sentence, and the abstract uses claim language (i.e. said) and the "(Fig. 1) at the bottom of the abstract should be removed.

Correction is required. See MPEP § 608.01(b).

Claim Objections

4. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

5. Claim 1 is objected to because of the following informalities:

Claim 1, line 16, "during the operation of slicing it" should be changed to -- during the slicing operation--.

Claim 1, line 12, should be changed from "the latter also comprises" to -- the element also comprises--, so that it is clear what the latter is actually referring to.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Desert et al. (U.S. Patent 4,434,692), herein referred to as Desert.

Desert discloses a device (10) for the automated cutting of bread into slices comprising an element (13) driving the bread and a set of blades (22) cutting the bread disposed substantially parallel to one another and arranged so as to be driven in an alternating reciprocating movement (col. 3, lines 23-29), the element (13) driving the bread being arranged so as to be moved in a translation movement transverse to the set of blades by a movement means (e.g. chain drive 16) coupled to said drive element between a first retracted position in which the bread to be sliced can be loaded in the device and a second advanced position in which the element driving the bread is adjacent to the set of blades and the sliced bread can be removed from the device, the latter also comprises a regulation means arranged so as to automatically regulate the power supplied by the movement means according to the speed and/or acceleration of the translation movement of the element driving the bread during the operation of slicing it, said regulation means being arranged to compare the speed of movement of the drive element with a predetermined speed and for respectfully increasing or reducing

the power of the means of moving said drive element when said movement speed is respectively less than or greater than the predetermined speed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desert et al. (U.S. Patent 4,434,692), herein referred to as Desert in view of Pearch (U.S. Patent 3,259,156) and Karwath et al. (U.S. Patent 5,583,404), herein referred to as Karwath. In regards to claim 2, Desert discloses that the movement means is an electric motor (col. 4, line 28) used to determine the speed of translation movement of the element driving the bread but does not disclose that the motor comprises a rotor and a stator and said regulation means is arranged to measure the speed of rotation of the rotor in the stator in order to determined the speed of translation movement of the element driving the bread. However, attention is directed to both the Pearch and Karwath references. Pearch discloses another sawmill carriage device with a manual regulation means comprising an external rotor resistor bank that can be regulated to control the speed and torque characteristics of the motor. Whereby the manual rotor pilot switch controls the value of resistance placed into each phone of the rotor and thus the switch controls the speed of the motor. However, the user is the

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means to determine whether the speed and torque of the motor needs to be increased and by the switch increases or decreases the resistance of the rotor. Attention is also directed to the Karwath reference. Karwath like Desert discloses a drive circuit for a DC motor that is monitored by a current and temperature limiter to maintain the bounds of the motor output (see Desert at least col. 6, lines 43-68 through col. 7, lines 1-27 and also Karwath abstract; col. 1, line 12, col. 2, lines 4-20, 48-52; col. 8, lines 12-36).

Karwath also discloses that it is well known that "A drive circuit for brushless DC motors comprising a rotor and a stator with at least one stator coil includes a commutation device which supplies commutation pulses of drive current to the stator coil(s). The commutation device senses the rotor position and calculates current rotor speed therefrom. The rotor speed is then used to shift the commutation currents according to predetermined functions. The shifting of commutation currents is occasioned by shifting either or both of the ignition part of a commutation pulse and the extinction part of such pulses"

(abstract). These measurements of rotor speed are used to control the output of the motor as regulated by the maximum permitted current and voltage. Thus although Desert does state that the motor comprises a rotor and stator from which measurements are derived to monitor the motor output, it is clear from at least Pearch and Karwath that it is well known in the art to monitor the speed of motor stator to control the feedback of the motor.

In regards to claim 3, the modified device of Desert discloses wherein the regulation means is arranged to reduce the intensity of the current consumed by said motor to a first predetermined value when this intensity exceeds a second predetermined value (see Desert at least col. 6, lines 43-68 through col. 7, lines 1-27).

In regards to claim 4, the modified device of Desert discloses wherein said regulation means is arranged to cause a reversal of the direction of movement of the element driving the bread when it reaches its first or second position.

In regards to claim 5, the modified device of Desert discloses wherein said reversal is controlled by at least one photoelectric cell arranged so as to mark the arrival of the drive element in its first or second position (see at least col. 5, lines 15-31)

In regards to claim 7, the modified device of Desert discloses wherein said reversal is caused from one of the first or second positions of the drive element when the intensity of the current consumed by the motor exceeds a predetermined value (col. 6, lines 10-38).

In regards to claim 8, the modified device of Desert discloses wherein the motor (M1) is coupled to the drive element by means of a ram and an articulated arm (38/17/19).

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Desert et al. (U.S. Patent 4,434,692), herein referred to as Desert in view of Pearch (U.S. Patent 3,259,156) and Karwath et al. (U.S. Patent 5,583,404), herein referred to as Karwath and in further view of Archer et al. (U.S. Patent 5,038,087). The modified device of

Desert does not disclose that regulation means is arranged to measure the number of turns made by the rotor of the motor in its stator and to cause said reversal from one of the first or second positions of the drive element when said number of turns reaches a predetermined value from the other one of the first and second positions of the drive element. Instead Desert discloses that reversal is obtained turning interaction of a switch and an actuating member (see for example col. 5, lines 2-25). However, attention is further directed to the Archer reference. Archer discloses an alternative means of causing reversal of a moving object through a DC motor with a rotor and a stator. Archer discloses that the pulses induced by the rotor and stator are received by a signal receiving means and then counted by a memory. These pulses are required for the blind /awning to move between its end positions and the signal receiving means produces an output signal when the count in the counter reaches the stored number of pulses and stops the motor at the end position. It similarly would have been obvious to have modified the Desert movement of the carriage by a regulation means that counted the number of pulses of the rotor to stop the movement of the carriage as taught by Archer as an alternative control means.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Desert et al. (U.S. Patent 4,434,692), herein referred to as Desert in view of Bott et al. (U.S. Patent 5,426,922), herein referred to as Bott. Desert does not disclose wherein said movement means is a source or reservoir of compressed air and instead discloses that the movement means is a DC motor. However, attention is directed to the Bott

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reference that also discloses a movement means for a conveyor. Bott discloses that the motor 262 is a pneumatic motor that operates in the same fashion as the DC motor to control conveyor movement as shown in Figure 15 (see col. 9, lines 4-8). It would have been obvious to one having ordinary skill in the art at the time of the invention to have replaced the DC motor of Desert for the pneumatic motor as taught by Bott as each motor is capable of performing the same task of driving a belt and pulley conveyor system.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent(s) 5,095,791; 4,759,168; 7,278,344; 3,954,036; 3,245,447; 2,247,673; 2,000,816;

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Primary Examiner, Art Unit 3724
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